

**Amendments to the Specification**

Please replace the paragraph at page 32, lines 5 through 13 with the following amended paragraph:

Since processing of the measured responses through the measurement grids provides the capability for each sensing element to be individually lift-off compensated and access to each element is not required for calibration, the sensor can be covered with a top coat of sealant to provide protection from any hazardous environments. Furthermore, the sensor can intentionally be set off a surface, or fabricated with a porous (or liberally perforated, e.g. at 249 in FIGs 8a and 8b) substrate material, to avoid or minimize interference with the environment causing the corrosion process to occur on the surface and to provide continuous monitoring and inspection for stress corrosion cracking or corrosion fatigue.